

1907.



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County Borough of Burton-upon-Trent.

ANNUAL REPORT

OF THE
MEDICAL OFFICER OF HEALTH,
FOR THE YEAR 1907,

BY

JAMES M. COWIE, M.D., D.P.H.,

*Medical Officer of Health, Medical Superintendent
of Borough Isolation Hospital, and
Public Analyst.*

ALSO

REPORT OF THE SANITARY INSPECTOR.

"HONOR ALIT ARTES."

County Borough of Burton-upon-Trent.

HEALTH COMMITTEE.

THE MAYOR (COUNCILLOR C. TRESISE).

Chairman : ALDERMAN MORRIS.

ALDERMAN T. TURNER

COUNCILLOR G. LATHBURY

COUNCILLOR W. AUSTIN

„ T. METCALFE

„ J. W. A. BASSETT

„ J. SAMBLE

„ A. BATES

„ E. C. STACK

„ W. T. GIBSON

„ J. WILKINSON

„ G. KENNARD

Town Clerk :

Borough Surveyor :

MR. T. N. WHITEHEAD.

MR. G. T. LYNAM.

Assoc. M. Inst., C.E.

Medical Officer's Department.

Chief Sanitary Inspector : WM. READING.

Assistant Sanitary Inspector : A. HUMPHRIES.

„ „ „ J. JENKINSON, C.S.I.

Clerk : C. GAUNT.

Matron of Borough Hospital : MISS SMITH.

Medical Officer of Health
and Public Analyst } JAMES M. COWIE, M.D., D.P.H.

County Borough of Burton-upon-Trent.

SUMMARY OF STATISTICS.

Area in acres	...	...	...	...	4,204
Rateable Value	...	...	£333,133	12s. 0d.	
Population at Census, 1901	...	...	...	...	50,386
Number of Persons to the Acre, 1901	...	...	...	...	12·0
Number of Persons per House at Census, 1901	...	...	...	...	4·91
Estimated Population at Mid-year, 1907	...	...	...	...	53,000
„ „	...	...	(Registrar General)...	...	53,425
Estimated Birth-rate per 1,000 living, 1907	...	...	...	...	24·5
Average Birth-rate for previous 10 years	...	...	...	...	27·2
Estimated Death-rate per 1,000 living, 1907	...	...	...	...	12·45
Average Death-rate for previous 10 years	...	...	...	...	14·29
Deaths under 1 year to 1,000 births, 1907	...	...	...	...	94
Death-rate from Zymotic Diseases, 1907	...	...	...	...	1·24

Infectious Diseases Notification Act, 1889, adopted
December, 1892.

Infectious Diseases Prevention Act, 1890, adopted
November, 1891.

Public Health Amendment Act, 1890, Part iii, adopted
March, 1897.

Burton-upon-Trent Corporation Act, 1896.

Burton-upon-Trent Corporation Act, 1901.

HEALTH OFFICE,

TOWN HALL,

BURTON-UPON-TRENT,

27th January, 1908.

TO THE CHAIRMAN AND MEMBERS OF THE
HEALTH COMMITTEE.

GENTLEMEN,

I have pleasure in submitting to you, in accordance with the regulations of the Local Government Board, my fourth Annual Report on the Health of the Borough.

The report contains the statistics of births and deaths, and also of the incidence of infectious diseases, together with records of the work carried out by this Department.

I desire in particular to draw your attention to the section of the report dealing with the milk supply.

I am, Gentlemen,

Your obedient servant,

JAMES M. COWIE.



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REPORT.

SITUATION.—The County Borough of Burton-upon-Trent is situated in the valley of the river Trent and on both its banks, in the counties of Stafford and Derby. The east arm of the river forms the boundary between the counties so that the part of the town on the right bank of this part of the river is in Derbyshire and that on the left bank in Staffordshire. The mean elevation above sea level of the Derbyshire part of the town is 250 feet, and of the Staffordshire part of the town 150 feet. The highest elevation is 420 feet above sea level near the site of Moat Bank House, Ashby Road. The town is situated in N. Lat. $52^{\circ} 48'$ W. Long. $1^{\circ} 38'$.

AREA.—The area of the Borough is just under 4,204 acres.

POPULATION.—The official estimate by the Registrar General of the population of the Borough at the middle of 1907 is 53,425. The method by which these figures are arrived at is based on the assumption that the proportionate rate of increase during the year would be the same as during the previous intercensal period.

It is advisable always that this estimate should be checked by methods which are influenced by local conditions, so that the actual population may be arrived at as nearly as possible. This is of great importance from the fact that all statistics depend for their accuracy on a correct estimation of the population. An estimated population greater than the actual population will obviously give an unduly favourable bearing to all statistics relating to death rates and rates of incidence of disease.

The most reliable method of checking the official estimate of the population is that dependent on the number of occupied houses. In the following table there is set forth the number of houses erected and the number demolished in the various Wards from the Census in 1901 to mid-year 1907.

The number of houses erected and the number demolished in the various Wards since the
Census to the middle of 1907.

Year.	Shobnall Ward.		Victoria Ward.		Horn'glow Ward.		Uxbridge Ward.		Broadway Ward.		Burton Ward.		Winshill & Wetmore Ward.		Stapenhill Ward.		TOTALS.	
	Houses Erected.	Houses Demolished.	Houses Erected.	Houses Demolished.	Houses Erected.	Houses Demolished.	Houses Erected.	Houses Demolished.	Houses Erected.	Houses Demolished.	Houses Erected.	Houses Demolished.	Houses Erected.	Houses Demolished.	Houses Erected.	Houses Demolished.	Houses Erected.	Houses Demolished.
1901	17	0	73	0	85	0	38	0	0	0	0	0	11	0	13	0	237	0
<i>Ap. 1 to Dec. 31</i>																		
1902	25	0	57	1	56	0	53	0	8	0	0	25	7	0	34	1	240	27
1903	11	0	89	0	26	0	37	0	2	0	6	5	14	0	18	0	203	5
1904	9	4	28	0	46	0	50	0	0	0	0	0	10	0	21	0	164	4
1905	13	3	24	0	47	0	54	0	0	0	0	0	9	0	9	0	156	3
1906	0	10	23	0	47	0	37	1	0	0	2	5	3	0	6	1	118	17
<i>End of June</i>																		
1907	0	0	21	0	6	0	8	0	0	0	0	1	4	0	0	0	39	1
TOTALS.	75	17	315	1	313	0	277	1	10	0	8	36	58	0	101	2	1157	57

The total number of houses in the Borough at the Census was 10,398, and as 1,157 houses have been erected and 57 demolished (as shewn in above table) the number at the middle of the year under review was 11,498. However, a large number of houses was returned as void on the 15th July, 1907, which is the date nearest to the middle of the year for which I have any information. I am indebted to Mr. Arnold, Borough Treasurer and Superintendent Assistant Overseer, for the following table of houses returned as empty on that date, and for comparison the numbers for the two preceding years are also given.

EMPTY HOUSES.

	1907.	1906.	1905.
Shobnall Ward	... 91	... 53	... 48
Victoria Ward	... 105	... 61	... 25
Horninglow Ward	... 103	... 85	... 44
Uxbridge Ward	... 94	... 91	... 42
Broadway Ward	... 65	... 47	... 26
Burton Ward	... 96	... 84	... 45
Winshill & Wetmore	... 57	... 52	... 34
Stapenhill Ward	... 58	... 37	... 20
Total	... 669	510	284

The above table shows a total of 669 empty houses on 15th July, an increase of 159 as compared with the previous year, and an increase of 385 as compared with 1905.

The number of occupied houses, therefore, at the middle of the year was 10,829, as compared with 10,912 in 1906, and 11,004 in 1905

The average number of persons per occupied house at the Census was 4·91. Taking all things into consideration, especially short time and want of work it is unlikely that this average has decreased.

If this average then be adopted the population at the middle of the year would be 53,170.

It seems certain, therefore, that the official estimate is too high.

The number of children attending school is also of some assistance in determining the population, but owing to the large drop in the birth-rate in recent years, this method loses much of its value.

I am indebted to Mr. Graham, Secretary to the Education Committee for the particulars in the following table :—

	No. of Children on books in Burton schools, Standard I and upwards.	No. on books in Infant Schools,	Total.
June, 1901	7159	3725	10,884
June, 1905	7693	2870	10,563
June, 1906	7470	2657	10,127
June, 1907	7212	2672	9,884

Taking all these particulars into consideration, I estimate the population at the middle of 1907 at 53,000, and all statistics in this report will be calculated on that basis.

NATURAL INCREASE.—The excess of births over deaths is known as the natural increase. The number of births and the net number of deaths belonging to the district for each year since the Census are given in the following table which shows that the natural increase is 4,242, as compared with an actual estimated increase of 2,614.

Year.	Births.	Deaths.	Natural Increase.
1901 (from Census)	1064	498	566
1902 	1365	672	693
1903 	1366	615	751
1904 	1354	782	572
1905 	1333	611	722
1906 	1282	686	596
1907 (end of June)	684	342	342
TOTALS ...	8448	4206	4242

WARD POPULATIONS.—The Borough was divided into 8 Wards by the Burton-upon-Trent Corporation Act 1901. The population of these Wards at the Census is set forth in the Census returns for Staffordshire, but we have again to fall back upon the number of inhabited houses as a means of obtaining an approximate estimate of these Ward populations at the middle of 1907. By this method the Ward populations are estimated as follows :—

Wards.	Estimated Population 1907.	Population Census 1901.
Shobnall	7059	7144
Victoria	7060	5962
Horninglow	7090	6043
Uxbridge	7986	7052
Broadway	6573	6793
Burton	5476	5906
Winshill and Wetmore ...	6081	6060
Stapenhill	5675	5426
TOTALS ...	53,000	50,386

DENSITY OF POPULATION.—The number of persons per acre estimated to the middle of 1907 was 12·6.

BIRTH RATE.—The number of births registered during the year was 1302, as compared with 1282 in the previous year—an increase of 20.

There has been a steady decrease in the birth rate with slight variations since 1882, when it was over 44 per 1,000 of the population, and there has been a constant yearly decrease since 1895, with the exception of a slight increase in 1898, so that it is a matter of some interest to have to record an increase, however small, for 1907.

The average number of births in the previous 10 years was 1379.

The birth rate per 1000 of the estimated population was 24·5, as compared with a rate of 24·2 in the previous year, and an average of 27·2 for the 10 years 1897-1906.

The birth rate for England and Wales for 1907 was 26·3.

Of the births registered 675 were of males and 627 females, the latter number being the same as last year, so that the increase is due to the number of males. Forty-six males and 20 females were illegitimate—total 66. The number of illegitimate births in 1906 was 46, so that the increase in the number of births is wholly accounted for by the increase in the number of illegitimate births.

The latter formed 5 % of the total births as compared with a percentage of 3·6 last year.

On referring to the table given below, it will be seen that the greater part of the increase in the illegitimate birth rate is due to the Workhouse cases, as evidenced by the fact that the percentage in the Shobnall Ward has risen from 12·3 to 15·3—the actual number of illegitimate births having increased in that Ward from 18 in 1906 to 29 in 1907. It may be pointed out that that Institution receives such cases from several districts outside the Borough, so that the Borough is not responsible for the whole increase. The percentage of illegitimate births, however, showed an increase in all the other Wards in the Borough, except Broadway where the percentage decreased from 4·6 in 1906 to 1·8 in 1907.

The increase in the number of illegitimate births as given above was 20, the Shobnall Ward takes 11 of that number, so that the remainder of the Borough accounts for 9. Next to Shobnall the highest percentage of illegitimate births was recorded in the Stapenhill Ward.

BIRTH RATE IN WARDS.—As usual the lowest birth rate was recorded in the Burton Ward. The highest rate this year was recorded in Stapenhill, and the highest number of births in the Uxbridge Ward.

These facts are shown in the following tables :—

WARD.	Population.	Total Number of Births.	Illegitimate Births.	Percentage of Illegitimate Births.	Birth Rate.
Shobnall	7059	189	29	15·3	26·7
Victoria	7060	193	7	3·6	27·3
Horninglow	7090	165	6	3·6	23·2
Uxbridge	7986	210	7	3·3	26·3
Broadway	6573	161	3	1·8	24·4
Burton	5476	99	3	3·0	18·0
Winshill and Wetmore	6081	120	3	2·5	19·7
Stapenhill	5675	165	8	4·9	29·0
TOTALS	53,000	1302	66	5%	24·5

BIRTHS, 1907.

Month.	Shobnall.		Victoria		Horninglow		Uxbridge		Broadway.		Burton		Winshill & Wetmore		Stapenhill.		TOTALS.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
January	11	10	6	17	5	11	11	9	7	10	2	2	3	7	5	3	50	69
February	10	10	8	5	8	7	9	7	5	5	7	5	6	4	10	6	64	49
March	4	6	10	3	9	4	12	9	9	9	2	2	1	1	8	7	61	41
April	5	9	11	13	9	10	8	10	10	10	4	4	5	5	7	9	59	70
May	12	7	12	4	10	5	8	10	5	5	2	2	6	6	8	10	67	49
June	7	8	9	11	13	9	6	5	2	2	5	5	4	4	8	5	56	49
July	8	6	6	9	3	5	9	8	6	6	4	4	5	5	7	8	56	51
August	10	11	7	6	10	6	6	12	9	9	3	3	8	9	5	7	53	63
September	6	3	5	5	4	6	13	8	9	9	4	4	5	2	4	8	48	45
October	12	5	8	9	8	3	9	7	13	13	2	2	7	7	16	6	62	52
November	6	4	6	10	6	4	12	7	7	7	2	2	2	2	2	7	47	43
December	10	9	5	8	6	4	10	5	6	6	3	3	5	6	4	5	52	46
TOTALS	101	88	93	100	91	74	113	97	70	91	61	38	62	58	84	81	675	627
Illegitimate	21	8	5	2	4	2	7	0	1	2	2	1	1	2	5	3	46	20

MARRIAGES.—The number of marriages solemnized in Burton during 1907 was 496, an increase of 34 as compared with the previous year.

The rate of persons married per 1000 of the population was 18·7.

I am indebted to Alfred Coxon, Esq., Superintendent Registrar, of the district of Burton-on-Trent, for the following figures relating to marriages :—

	1907	1906	1905	1904	1903	1902
First Quarter	82	81	83	83	96	92
Second Quarter	127	127	120	138	119	122
Third Quarter	148	135	108	142	155	123
Fourth Quarter	139	119	123	135	127	127
Total	496	462	434	498	497	464

The figures for previous years in Burton, and in England and Wales, are given in the following table :—

	Total Number of marriages in Burton.	Rate of persons married per 1000 of the population in Burton.	Rate of persons married per 1000 of the population in England and Wales.
1890 ...	415	18·2	15·5
1891 ...	379	16·4	15·6
1892 ...	421	18·0	15·4
1893 ...	422	18·0	14·7
1894 ...	424	18·0	15·0
1895 ...	421	17·6	15·0
1896 ...	394	16·4	15·7
1897 ...	476	19·6	16·0
1898 ...	484	19·8	16·2
1899 ...	482	18·4	16·5
1900 ...	455	18·2	16·0
1901 ...	533	20·6	15·9
1902 ...	464	18·2	15·8
1903 ...	497	19·2	15·7
1904 ...	498	19·2	15·2
1905 ...	434	16·6	15·2
1906 ...	462	17·4	15·6
1907 ...	496	18·7	...

There was a large drop in the marriage rate for the Borough in 1905, but in 1906 there was a considerable improvement which has been maintained and increased for 1907.

A higher marriage rate is the usual concomitant of increasing prosperity in trade.

DEATH RATE.—The total number of deaths registered in the Borough during the year was 685 (males 411, females 274). Included in this number are 30 males and 18 females not belonging to the Borough, where the deaths occurred in the General Infirmary or the Workhouse. These have to be deducted.

Again, the deaths of 10 males and 13 females belonging to the Borough where death took place in Institutions outside the Borough, have to be added. The nett number of deaths is, therefore, 391 males and 269 females—a total of 660.

Through the kindness of Mr. Chamberlin, Clerk to the Guardians, I have been able to include in the above the deaths of pauper lunatics belonging to the Borough which took place in Asylums outside the district. The death returns have been made as complete as possible by adding the deaths of Burtonians in other Institutions outside the Borough.

These Institutions are the Borough Isolation Hospital, Burntwood Asylum, County Asylum, Cheddleton, and Queen's Hospital, Birmingham.

The nett death rate was 12·45 per 1000 of the estimated population, as compared with 12·96 in 1906, and an average of 14·29 for the previous 10 years.

There was an unusual excess of deaths of males. The number of deaths of males is always greater than that of females, but in the year under review the proportion amounted to 59 % of the total, whereas the greatest proportions in the past 10 years was 58·5 per cent. in 1899 and 56·8 per cent. in 1905.

The death rate in England and Wales was 15·0.

DEATH RATE IN WARDS

Wards.				Number of Deaths.	Death-rate per 1000.
Shobnall	...	...	...	92	13·0
Victoria	...	...	...	88	12·4
Horninglow	...	...	...	87	12·2
Uxbridge	...	...	...	95	11·8
Broadway	...	...	...	76	11·5
Burton	...	...	...	87	15·8
Winshill and Wetmore	...	...	...	55	9·0
Stapenhill	...	...	...	80	14·0
TOTALS ...				660	12·45

The Burton and Stapenhill Wards showed the highest death rates and Winshill and Wetmore Ward the lowest.

In classifying the deaths in the various Wards, where a patient died in the Infirmary or Workhouse, or in an Institution outside the Borough, the previous address was ascertained wherever possible, and the death transferred to the original address.

CORRECTED DEATH RATE.—In order that the death rates of different places can be fairly compared, it is essential to know whether the respective populations are made up of sexes in the same proportion, and whether they contain the same proportion of persons in the various age groups.

To correct a death rate, for age and sex distribution, the Registrar General has published tables giving the factors by which the recorded death rate has to be multiplied. For Burton the factor is 1·0747, and this being applied gives a death rate corrected for age and sex distribution of 13·4.

The following table gives the death rate in a number of towns of similar size to Burton :—

Town.				Estimated Population.	Death Rate.
Bath	...	...	...	50,000	14·3
Blackpool	...	...	...	58,431	11·59
Bolton	...	...	...	182,917	16·7
Bootle	...	...	...	69,200	15·7
Burnley	...	...	...	103,947	17·4
Derby	...	..	...	125,774	14·2
Halifax	...	...	...	108,500	15·2
Ipswich	...	...	...	72,825	14·9
Keighley	...	...	..	44,990	13·75
Newport (Mon.)	...	...	...	75,585	15·5
Oxford	...	...	...	51,586	12·6
Rotherham	...	...	..	62,500	15·45
Stockton-on-Tees	...	...	...	55,023	17·35
West Bromwich	...	...	...	69,123	16·4
Wigan	...	...	...	90,765	18·03
Wimbledon	...	...	...	51,700	9·2
York	...	...	...	84,730	15·5
Burton-upon-Trent	..	...	...	53,000	12·45

CAUSES OF DEATH.—The gains and losses under the various classes of diseases are set forth below, but the full list of causes of death will be found more fully in table IV at the end of the report.

GAINS.

Disease.			No. of deaths 1906.	No. of deaths 1907	Decrease.
Whooping Cough	...	...	12	6	6
Diarrhœa	...	...	35	6	29
Enteritis	...	...	6	4	2
Erysipelas	...	...	2	0	2
Phthisis	...	...	79	61	18
Cancer	...	...	42	40	2
Other diseases of respiratory organs	...	...	2	0	2
Venereal diseases	...	...	3	0	3
Marasmus	...	...	27	26	1
Premature birth	...	...	27	22	5
Heart disease	...	...	61	49	12
Suicide	...	...	8	4	4
Hemiplegia and Apoplexy	...	...	23	20	3
Old age	...	...	36	35	1
Convulsions	...	...	9	7	2
Brights disease	...	...	17	9	8
Congenital defects	...	...	9	4	5
Not certified	...	...	22	18	4
All other causes	...	...	118	100	18
TOTALS			538	411	127

LOSSES.

Disease	No. of deaths 1906.	No. of deaths 1907.	Increase.
Measles	2	35	33
Scarlet Fever	3	7	4
Enteric Fever	4	7	3
Epidemic Influenza	4	11	7
Other septic diseases	0	1	1
Other tubercular diseases	17	22	5
Bronchitis	43	69	26
Pneumonia	39	52	13
Pleurisy	2	3	1
Alcoholism and Cirrhosis of Liver	11	17	6
Diseases and Accidents of parturition	5	6	1
Accidents	12	13	1
TOTALS	142	243	101

Diphtheria and Membranous Croup (5 deaths) and Puerperal Fever (1 death) each caused the same number of deaths as last year.

There has, therefore, been a nett saving of 26 lives as compared with the previous year. The chief gains are recorded under four headings, viz., Diarrhœal Diseases, Phthisis, Heart Diseases, and Other Causes. The cold wet summer was favourable to young children and this explains the large gains under Diarrhœal diseases, but was unfavourable to those affected with chest complaints, as evidenced by the large increase in the number of deaths from Bronchitis and Pneumonia. The epidemic of Measles caused 35 deaths, entailing a loss of 33 lives from that disease compared with the previous year,

UNCERTIFIED DEATHS AND INQUESTS.—Uncertified deaths are those where no certificate of death by a qualified Medical Practitioner or by a Coroner is received, but where the statement of the informant as to the cause of death is accepted by the Registrar. Uncertified deaths numbered 18, and are set forth below with particulars :—

UNCERTIFIED DEATHS.

Age.			Sex.	Probable cause of death.
64 years	...	...	F	Heart failure
1 hour	...	...	M	Premature birth
81 years	...	...	F	Heart failure
57 years	...	...	M	do.
63 years	...	...	M	do.
9 hours	...	...	F	Premature birth
58 years	...	...	M	Heart disease
80 years	...	...	M	Heart failure
67 years	...	...	M	Heart disease
56 years	...	...	M	do.
43 years	...	...	M	do.
24 days	...	...	M	Convulsions
64 years	...	...	M	Heart disease
73 years	...	...	F	Heart failure
8 months	...	...	F	Convulsions
67 years	...	...	F	Heart disease
1 year	...	...	F	Convulsions
2 months	...	...	F	do.

INQUESTS.--During the year the Coroner deemed an inquest necessary in 38 cases, compared with 42 in the previous year. The verdicts of juries as to cause of death were recorded as follows :—

INQUESTS, 1907.

Cause of death.						
Overlaying	...	...	...	...	...	3
Crushed between buffers of trucks	...	...	...	...	...	1
Crushed between cart wheel and gate	...	...	...	...	..	1
Burns and scalds	...	...	...	...	...	7

Fall downstairs	...	...	...	...	...	3
Heart disease	...	...	...	...	...	3
Want of proper attention at birth	...	...	...	...	...	1
Epileptic convulsions	...	...	...	...	...	1
Fall from a trap (concussion of brain)	...	...	...	...	...	1
Pneumonia, following fractured ribs caused by cart wheel	...	...	...	...	...	1
Crushed by traction engine	...	...	...	...	...	1
Suicide by drowning	...	...	...	...	...	2
Ribs crushed by wheel of cart (exhaustion)	...	...	...	...	...	1
Pneumonia, following accident to chest	...	...	...	...	...	1
Natural causes	...	...	...	...	...	1
Suicide by hanging	...	...	...	...	...	2
Fractured larynx (manslaughter)	...	...	...	...	...	1
Open verdict (found in canal)	...	...	...	...	...	1
Found drowned	...	...	...	...	...	1
Injured head, followed by delirium tremens	...	...	...	...	...	1
Rupture of heart	...	...	...	...	...	1
Fractured ribs (heart failure)	...	...	...	...	...	1
Accidentally killed by rapid descent of colliery cage	...	...	...	...	...	1
Tetanus	...	...	...	...	...	1
						—
						Total 38
						—

Seven of these Inquests were on cases which did not belong to the Borough.

INFANTILE MORTALITY.—The number of deaths under one year of age was 123, the number of births was 1302, giving an infantile mortality rate of 94 per 1000 births.

The cold wet summer was favourable to a low mortality amongst infants, but it is worthy of notice that during the past 5 years this rate for the Borough has never been over 120, and has three times been under 100, and twice under 90 per 1000 births. The rate which is usually regarded as satisfactory in the mortality of infants is one under 100, anything over this being considered preventable.

The rate for England and Wales was 118.

The following table gives the infantile mortality in the Borough for a number of years, and also for the 76 great towns, and for the country as a whole :—

INFANTILE MORTALITY.

	1907	1906	1905	1904	1903
Total number of deaths under 1 year of age	123	151	116	160	121
Total number of births registered	1362	1282	1333	1354	1366
Infantile Mortality (deaths per 1000 births)	94	117	87	118	89
Infantile Mortality (England and Wales)	118	133	128	146	132
Infantile Mortality (76 great towns)	127	145	140	160	144
Average Infantile Mortality in Burton for the 10 years 1897-1906	118				

The following table gives the rate in a number of towns of similar size to Burton :—

Town.				Estimated Population 1907.	Infantile Mortality, 1907.
Bath	...	...	...	50,000	91
Blackpool	...	...	...	58,431	110
Bolton	...	...	...	182,917	145
Bootle	...	...	...	69,200	123
Burnley	...	...	...	103,947	156
Burton-on-Trent	...	...	...	53,000	94
Derby	...	...	...	125,774	120
Halifax	...	...	...	108,500	102
Ipswich	...	...	...	72,825	106
Keighley	...	...	...	44,990	116
Newport (Mon.)	...	...	...	75,585	124
Oxford	...	...	...	51,586	86
Rotherham	...	...	...	62,500	146
Stockton-on-Tees	...	...	...	55,023	115
West Bromwich	...	...	...	69,123	151
Wigan	...	...	...	90,765	163
Wimbledon	...	...	...	51,700	111
York	...	...	...	84,730	124

The particulars relating to the causes of death in infants will be found in table V at the end of this report, but the causes of death may be summarised as follows :—

Measles	...	...	...	8
Whooping cough	...	...	...	3
Diarrhœa	...	...	...	5
Premature birth	...	...	...	22
Congenital defects	..	...	...	3
Injury at birth	...	...	...	2

Marasmus	...	...	...	26
Tubercle	...	...	..	6
Convulsions	...	...	...	5
Bronchitis	...	...	...	16
Pneumonia	...	...	...	12
Other causes	...	...	...	15
Total				123

The number of deaths of infants, therefore, was 28 less than in the previous year. There were 18 deaths fewer under the heading of diarrhoeal diseases, but 8 more deaths from Bronchitis and Pneumonia. The cold wet summer would account for both these variations.

MORTALITY IN WARDS.

Ward.			Number of Births.	Percentage of Illegitimate Births.	Number of Deaths under 1 year.	Infantile Mortality Rate.
Shobnall	...	...	189	15·3	21	111
Victoria	...	...	193	3·6	21	109
Horninglow	...	...	165	3·6	14	84
Uxbridge	...	...	210	3·3	19	90
Broadway	...	...	161	1·8	10	62
Burton	...	...	99	3·0	13	131
Winshill & Wetmore	...	...	120	2·5	8	66
Stapenhill	...	...	165	4·8	17	103
Totals			1302	5·0	123	94

The Burton Ward again shows the highest infantile mortality rate with Shobnall next, the high rate in the latter being due in some measure to the large percentage of illegitimate children, amongst whom the rate of mortality is always very high—usually about three times as high as amongst legitimate children; but for 1907 the illegitimate mortality rate was unusually low, as shown in the following table :—

	1907.	1906.	1905.	1904.	1903.	1902.
Deaths of legitimate infants per 1000 legitimate births	92	109	81	110	83	104
Deaths of illegitimate infants per 1000 illegitimate births	136	347	210	314	235	340

STILL BIRTHS.—I am indebted to Mr. Rudd, Registrar of the Cemetery, for the information that 35 still born children were buried in the Cemetery during the year.

NOTIFICATION OF BIRTHS ACT.—This Act which is an adoptive one, provides for the notification of births within 36 hours to the Medical Officer of Health, with the object that measures might be taken against the excessive mortality of infants.

A report on this subject was drawn up by the Medical Officer of Health and was considered by the Health Committee on 2nd December, 1907, when it was decided to postpone consideration of this matter for three months.

DEATHS FROM TUBERCULAR DISEASES.—During the year 61 deaths were registered from pulmonary phthisis, a decrease of 18 as compared with the previous year.

This is equal to a phthisis death rate of 1·15 per 1,000, the rate for 1906 being 1·4.

Tubercular diseases other than phthisis caused 22 deaths, an increase of 5, giving a rate for other forms of tuberculosis of 0·4.

PREVENTIVE MEASURES.—All houses where a death from consumption was recorded, were disinfected.

ZYMOTIC DEATH RATE.—The number of deaths from the 7 principal zymotic diseases (Smallpox, Scarlet Fever, Enteric Fever, Diphtheria, Measles, Whooping Cough, and Diarrhœa) calculated as a rate per 1,000 of the estimated population forms the zymotic death rate. The number of deaths was 66, giving a zymotic death rate of 1·24, as compared with 1·15 last year, the increase being due to the number of deaths from Measles. Table of number of deaths :—

	1907	1906	1905	1904	1903	1902	1901	1900	1899	1898
Diphtheria ...	5	5	7	6	3	5	16	68	8	11
Scarlet Fever	7	3	1	6	6	16	5	0	7	2
Epidemic Diarrhœa	6	35	13	21	15	6	34	36	52	50
Whooping Cough	6	12	3	41	8	9	27	13	22	2
Enteric Fever	7	4	2	0	1	0	10	3	10	3
Measles ...	35	2	9	5	4	19	2	45	0	31
Smallpox ...	0	0	0	0	1	0	0	0	0	0
Totals ...	66	61	35	79	38	55	94	165	99	99

The Zymotic death rate for Burton and for England and Wales for several years are shown in the following table : —

	1907	1906	1905	1904	1903	1902	1901	1900	1899	1898	1897	1896
England and Wales	1·26	1·73	1·52	1·94	1·46	1·64	2·05	2·0	2·21	2·22	2·15	2·18
Burton-upon-Trent	†1·24	1·15	0·6	§1·52	0·7	†1·12	1·85	*3·09	1·88	1·93	1·78	*3·83

* Measles and Diphtheria prevalent.

§ Measles and Whooping Cough prevalent.

† Measles prevalent.

The zymotic death rate in Burton is compared with that in a number of other towns of similar size in the following table :—

Town.	Estimated Population, 1907.	Zymotic Death Rate.
Bath	50,000	0·76
Blackpool	58,431	0·65
Bolton	182,917	2·40
Bootle	69,200	1·8
Burnley	103,947	1·38
Burton-on-Trent	53,000	1·24
Halifax	108,500	0·66
Derby	125,774	1·8
Ipswich	72,825	1·23
Keighley	44,990	0·94
Newport (Mon.)	75,585	1·8
Oxford	51,586	0·31
Rotherham	62,500	1·39
Stockton-on-Tees	55,023	1·70
West Bromwich	69,123	2·4
Wigan	90,765	2·58
Wimbledon	51,700	1·3
York	84,730	1·13

CANCER.—There were 40 deaths from Cancer registered during the year, a decrease of 2 compared with 1906. The Cancer death rate was, therefore, equal to 0·75 per 1,000.

In three instances a death occurred in a house where we have a record of a death from this disease in previous years, one 19 years before, another 10 years, and the third 1 year. In five instances there had previously been a case next door, the intervals between the cases being 1 year, 2 years, 7 years, 9 years and 13 years.

NOTIFICATION OF ZYMOTIC DISEASES.—Under the Infectious Disease (Notification) Act, 1889, the following diseases have to be notified to the Medical Officer of Health, namely :—Small pox, Cholera, Diphtheria, Membranous Croup, Erysipelas, Plague, Scarlet Fever or Scarlatina, Typhus Fever, Enteric Fever, Relapsing Fever, Continued Fever and Puerperal Fever, and any other infectious disease to which this Act has been applied by the local Authority in manner provided by the Act. No infectious disease apart from the above list, has now to be notified in the Borough, although Measles was added to the list for a period of 9 years (1893-1902).

The following table shows the number of notifications of each disease for a number of years :—

NOTIFICATION OF ZYMOTIC DISEASES.

TABLE :

	1907	1906	1905	1904	1903	1902	1901	1900	1899	1898	1897
Scarlet Fever...	141	209	223	106	179	256	201	110	322	314	351
Small Pox ...	—	—	—	13	37	—	—	—	—	—	—
Diphtheria ...	43	24	58	46	25	53	161	414	46	55	72
Enteric Fever...	28	15	12	8	17	10	65	24	37	25	46
Puerperal Fever	1	6	3	5	2	7	3	3	6	1	2
Erysipelas ...	41	71	74	55	26	51	66	78	77	70	79
Total	254	325	380	233	286	377	496	629	488	465	550
Chicken Pox ...				60	249						
Measles ...						1604	138	2690	25	2048	272

The Infectious Disease (Notification) Act was adopted in the Borough in December, 1892, and since then the annual number of notifications received has been less than in the present year on only one occasion, viz.:—in 1904, when the number was 233, as compared with a total of 254 for the year 1907. As shown in above table the numbers notified as compared with the previous year showed a decrease in Scarlet Fever, Puerperal Fever and Erysipelas, but an increase in Enteric Fever and Diphtheria.

The age distribution of the diseases notified is shown in the following table :—

Notifiable Disease.	At all Ages	At Ages—Years					
		Un- der 1	1 to 5	5 to 15	15 to 25	25 to 65	65 and up- wards
Small Pox ... ..	...	...	...	...	...	...	...
Cholera ... ..	...	...	...	...	...	...	...
Diphtheria, } Membranous Croup }	43	0	11	28	3	1	0
Erysipelás	41	0	1	4	2	25	9
Scarlet Fever	141	0	41	80	11	9	0
Typhus Fever ... ..	...	...	...	...	...	...	...
Enteric Fever	28	0	3	5	10	10	0
Relapsing Fever ... ..	...	...	...	...	...	...	...
Continued Fever ... ..	...	...	...	...	...	...	...
Puerperal Fever	1	...	...	...	...	1	...
Plague ... ..	...	...	...	...	...	...	...
Totals	254	0	56	117	26	46	9

The following table giving the notifications in months, shows that, taking them as a whole, there was great uniformity in the prevalence of infectious diseases throughout the year, the months of June and August showing the smallest number of cases notified.

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Enteric Fever ...	0	0	7	2	3	2	7	3	1	0	1	2	28
Scarlet Fever ...	19	11	12	11	11	3	5	1	24	16	18	10	141
Diphtheria ...	2	2	1	9	2	4	2	1	1	3	5	11	43
Erysipelas ...	3	3	2	3	4	2	8	3	4	5	3	1	41
Small Pox ...	0	0	0	0	0	0	0	0	0	0	0	0	0
Puerperal Fever	0	0	1	0	0	0	0	0	0	0	0	0	1
	24	16	23	25	20	11	22	8	30	24	27	24	254

SCARLET FEVER.—The number of cases of this disease notified shows a decrease of 68 as compared with 1906, but it was markedly in evidence that the disease was of a much more severe type than has been usual in recent years in the Borough. This tendency of the disease to assume a more severe type began towards the latter part of 1906, and was recorded in the Annual Report for that year.

These severe cases were for the most part of a pronounced septic type, with very dirty throats, enlarged cervical glands, and nasal and aural complications. There were seven deaths recorded as due to Scarlet Fever, of these, five occurred in the Borough Isolation Hospital.

The districts chiefly affected were Horninglow, Victoria, and Winshill and Wetmore Wards. In the two former a large number of cases occurred in the last four months of the year owing to the prevalence of the disease in Goodman Street School, chiefly in the infant department, where 17 cases occurred from 1st September. The infection in two cases, however, could be traced to sources other than the school, leaving 15 cases apparently due to school infection. When it became

evident that there were a number of cases in connection with the infant department of this school, having an onset about the same date, steps were taken to control the disease. The best means of doing this, is the medical inspection of all the children in the department, and this was done on 3rd September, and seven children with symptoms more or less suspicious were excluded. This stopped the disease temporarily but cases cropped up at intervals until 22nd November, the date of the last case notified. The children were inspected on 11th November and three children excluded, and again on 29th November when four more were excluded. The teacher in charge was also of great assistance and kept a sharp look-out for any suspicious case. At least three of the children excluded were almost certainly suffering from Scarlet Fever in a very modified form. The school was disinfected on 18th October and on November 15th, and the Girls' school where there were also a few cases, on 2nd October. A letter with suggestions from the Medical Officer of Health *re* treatment of closets and some school apparatus was sent to the Education Committee on 11th November. These were immediately carried out.

The number of cases removed to Hospital was 117 or 83 per cent. of the total, as compared with 86·6 per cent. last year.

Seven of the cases were fatal, five of these belonging to the Horninglow Ward, where the disease assumed a severe character in many cases.

The following table shows how the various Wards were affected, the case fatality, and the removals to Hospital per cent :—

SCARLET FEVER.

Ward.	Cases.	Attack Rate per 1000.	Deaths.	Case Fatality Per cent.	Removals to Hospital Per Cent.
Shobnall	13	1·8	1	7·6	69·2
Victoria	25	3·5	0	0·0	76·0
Horninglow	41	5·7	5	12·1	92·6
Uxbridge	3	0·3	0	0·0	100·0
Broadway	5	0·7	0	0·0	100·0
Burton	6	1·0	0	0·0	100·0
Winshill & Wetmore ...	29	4·7	0	0·0	72·4
Stapenhill	19	3·3	1	5·2	84·2
Total ..	141	2·6	7	4·9	83·0

DIPHTHERIA.—The number of cases of this disease notified was 43, as compared with 24 and 58 in the two years immediately preceding. Twenty-four cases were notified from January to end of September, and 19 cases in the last three months, showing that there was a tendency to increase. Of the 19 cases, however, four occurred in one house, and three in another.

Several of the Midland towns showed an undue prevalence of this disease during the year, and there was also a larger number of cases than usual in certain Rural Districts nearer to Burton.

There were five deaths, two of these being in the Isolation Hospital. In the following table will be found the chief particulars relating to this disease :—

DIPHTHERIA.

Ward.	Cases.	Attack Rate per 1000.	Deaths.	Case Fatality Per Cent.	Removal to Hospital Per Cent.
Shobnall	2	0·2	0	0·0	0·0
Victoria	3	0·4	0	0·0	0·0
Horninglow	7	0·9	2	28·5	57·1
Uxbridge	10	1·2	1	10·0	0·0
Broadway	12	1·8	1	8·3	8·3
Burton	4	0·7	1	25·0	25·0
Winshill and Wetmore	4	0·6	0	0·0	0·0
Stapenhill	1	0·1	0	0·0	0·0
Total	43	0·8	5	11·6	13·9

DIPHTHERIA ANTITOXIN was supplied as usual from the Health Office for cases of Diphtheria, and also for prophylactic purposes. The facilities provided by the Health Department in this matter are fully realised, and are taken advantage of in almost every case.

ENTERIC FEVER.—Twenty-eight cases were notified during the year, the largest number since 1901. A peculiar feature is that the cases occurred chiefly from March to July inclusive, whereas this disease is usually prevalent in the late summer and autumn. There were several instances where direct infection was the evident cause of subsequent cases in the same house, where the facilities for nursing the patients at home were inadequate, or, where sufficient care in the nursing

was not forthcoming. In two instances a primary case was followed by two subsequent cases in the same house, and in another house an overlooked case was the cause of four subsequent cases in the same house. In another instance, a case occurred in a house which stands back to back to a house where three cases had been notified a short time previously. There had been no communication between the families so far as could be discovered, but infection may have been caused by other agencies such as dust or flies.

This disease in its earliest stages is difficult to diagnose with certainty, so that there is nearly always an unavoidable delay of at least 10 days before the cases are notified. In fact, medical assistance is rarely summoned during the first week of the illness owing to the gradual but progressive onset of the disease. Hence, in the poorer homes where nursing facilities are lacking, infection of other members of the family may have taken place before adequate precautions are taken.

All the instances where direct infection occurred were associated with privy middens or pail closets, which were probably the chief factors in the spread of infection.

It will be seen, therefore, that the increase in the number of cases was due in main part to direct infection in the houses where a previous case, or an overlooked case, had occurred.

One case was infected at Derby or Belper, while another was possibly infected at Tutbury.

Fourteen cases were treated in the Isolation Hospital, of which two died, and one was treated in the Workhouse.

In all there were seven deaths from this disease.

ENTERIC FEVER.

Ward.	Cases	Attack Rate per 1000.	Deaths.	Case Fatality Per cent.	Removals to Hospital Per cent.
Shobnall	2	0·2	1	50·0	0
Victoria	2	0·2	1	50·0	50·0
Horninglow	3	0·4	0	0	66·6
Uxbridge	4	0·5	1	25·0	25·0
Broadway	14	2·1	1	7·1	71·4
Burton	1	0·1	1	100·0	·0
Winshill & Wetmore ..	2	0·3	2	100·0	·0
Stapenhill	0	0	0	0	·0
Total .	28	0·5	7	25·0	50·0

ERYSIPELAS.—There were 41 notifications of this disease, a decrease of 30 compared with the previous year.

PUERPERAL FEVER.—Only one notification was received during the year. The patient was attended by an unregistered Midwife, but as she does “not take or use the name or title of Midwife (either alone or in combination with any other word or words) or any name, title, or description implying that she is certified under this Act” (the Midwives Act), no action could be taken against her. In April, 1910,

however, Sub-section 2, Section I of the same Act comes into force, and then no woman "shall habitually or for gain attend women in child-birth otherwise than under the direction of a qualified medical practitioner unless certified under the Act."

MEASLES AND WHOOPING COUGH.—Measles was present in epidemic form during the last four months of the year. This disease has assumed epidemic proportions every second year in the Borough for many years, but in this instance it seems to have missed a year, the last epidemic having begun in August, 1904, and ended in March, 1905. This disease is notified to the Health Department by the Education Authority, and no less than 1905 cases were reported.

The closing of schools in an urban area, unless done at a very early stage, seems to have little effect in checking the spread of this disease, but as the schools were to be closed for a week in the beginning of October for the Burton Statutes, advantage was taken of this to close five of the affected infant departments for a fortnight. The effect of this was not very marked. Later, at the end of November, the Stapenhill infant school was closed for three weeks, chiefly owing to the fact that the numbers were so reduced through bad weather and the prevalence of Measles that it was hardly worth while keeping the school open.

Up to the end of the year Measles was the certified cause of 35 deaths.

WHOOPING COUGH was not present in epidemic form during the year, but towards the end of the year signs were not wanting that this disease was becoming increasingly prevalent and threatening to assume epidemic proportions.

CHICKENPOX.—237 cases were notified by the Education Authority, Stapenhill being the district chiefly affected, this being the remains of an epidemic in this district in 1906.

SCHOOLS AND INFECTIOUS DISEASE.—The infant department of 6 schools, viz. : Horninglow, Grange Street, Christ Church, Uxbridge Street, Bond Street (for 2 weeks), and Stapenhill (for 3 weeks) were closed for Measles during the year. The Education Authority has reported to the Medical Officer of Health all cases of the non-notifiable infectious diseases coming under the notice of the teachers and school attendance officers.

The following table shows how the various schools were affected with infectious diseases during the year.

SCHOOLS AND INFECTIOUS DISEASE.

SCHOOL.	Whoop- ing Cough	Chicken Pox	Measles	Scarla- tina	Diph- theria	Enteric
Winshill ..	25	9	1	6	0	0
Horninglow	47	2	198	1	0	0
Broadway	7	30	174	2	14	3
Mission Room, Stapenhill	2	46	39	4	0	0
Victoria Road . . .	52	23	220	10	0	1
Grange Street	49	14	194	2	0	0
Hawkins Lane .. .	0	0	0	2	0	0
Christ Church	8	0	177	2	1	0
Shobnall Road	0	19	34	0	0	0
Bond Street	3	3	61	3	2	1
Hill Street and St. Peter's Street	0	1	161	9	0	0
Guild Street . . .	2	12	169	8	5	1
Wetmore Road .. .	9	23	0	6	0	0
Holy Trinity . . .	0	17	5	0	0	0
Uxbridge Street ..	1	4	240	1	2	0
Catholic, Guild Street ..	0	2	4	0	0	0
Goodman Street . .	5	14	139	32	2	1
Stafford Street	0	1	2	6	0	0
High School (Girls) ..	0	0	1	0	0	0
Stanton	0	8	3	0	0	0
Grammar School . .	0	0	0	0	0	0
No School	15	9	83	47	17	21
Totals ..	225	237	1905	141	43	28

MEDICAL INSPECTION OF SCHOOL CHILDREN.—

Under the Education (Administrative Provisions) Act, 1907, it is obligatory on all Education Authorities to provide for the Medical Inspection of School Children at stated periods. There is no doubt this Act, if properly carried out, will do much to insure efficiency and also to reduce the amount of the minor infectious diseases amongst school children. A definite scheme for the Borough is in course of preparation.

BACTERIOLOGICAL EXAMINATIONS.—These examinations were conducted for the Corporation by the Lister Institute, London. The following is a summary of the results :—

DISEASE.		Results positive.		Results negative.	
Diphtheria	.. ..	10	.. ..	12	
Enteric Fever	.. ..	17	.. ..	12	
Phthisis	.. ..	7	.. ..	9	
		—		—	
Totals	...	34		33	
		—		—	

Two of the negative diphtheria swabs showed the presence of Hoffman's pseudo diphtheria bacillus.

BOROUGH ISOLATION HOSPITAL.—During the year the total number of patients treated in the Borough Hospital was 166.

Of this number 26 were in Hospital on 1st January, 1907, while 140 were admitted during the year. The latter number includes two from the Tutbury Rural District, and one probationer nurse who contracted diphtheria. A much larger proportion than usual of the cases treated was of a severe type, and this involved much greater strain on the nursing staff which had to be augmented on several occasions. The number of deaths was nine, a much larger proportion than usual, bearing testimony to the severe type of the diseases treated.

The following is a summary of the cases treated :—

Patients.	In Hospital Jan. 1st, 1907.	Admitted.	Discharged.	Died.	In Hospital Dec. 31st, 1907.
Small Pox ...	0	0	0	0	0
Scarlet Fever ...	26	*119	120	5	20
Diphtheria ...	0	7	4	2	1
Enteric Fever ...	0	14	11	2	1
Other Diseases .	0	0	0	0	0
Totals ..	26	140	135	9	22

* Including 2 from Tutbury Rural District.

The ages of the patients admitted were as follows :

Under 1 year	...	...	0
1 to 5 years	..	...	38
5 to 15 years	...	...	77
15 to 25 years	...	...	13
Over 25 years	...	...	12
Total ...			140

HOSPITAL EXPENDITURE.—The following table shows the Hospital expenditure during the financial year ending 31st March, 1907 :—

	£	s.	d.
Men's wages and team work ..	245	11	4
Matron's, Nurses', and Servants' wages and clothing	273	1	7
Provisions	325	8	2
Gas, water, and fuel	177	7	4
Rates, taxes, and insurance ..	79	3	9
Repairs, painting, etc.	19	12	5
Furnishing, ironmongery, chandlery, etc.	42	1	3
Medical requisites, disinfectants, etc.	25	7	10
Keep of horse	30	10	1
Plants, seeds, etc.	17	14	5
Miscellaneous	52	14	9
New road	53	18	2
New lamps	15	15	1
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Total	1358	6	2
Less income	99	12	2
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Nett expenditure on maintenance	£1,258	14	0
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VACCINATION.—The following table is compiled from information kindly supplied to me by Mr. C. F. Chamberlin, Clerk to the Guardians. The figures relate to the whole of the Burton district, the facts for the Borough not being available separately :—

VACCINATION RETURNS.

	1906	1905	1904	1903	1902	1901	1900	1899	1898	1897
Births Registered ...	1421	1474	1483	1489	1493	1527	1566	1569	1600	1408
Successfully Vaccinated ...	1022	1153	1113	1179	1142	1039	733	806	526	516
Insusceptible ...	2	0	1	2	3	0	1	6	0	0
Dead Unvaccinated...	120	99	127	113	117	128	175	187	203	157
Exempted through "Conscientious Objection" ...	73	54	44	37	33	37	35	34	18	6
Postponed by Medical Certificate ...	33	27	1	1	4	3	0	0	0	1
Left District and reported elsewhere ...	12	8	7	5	12	16	13	15	16	15
Lost sight of ...	86	85	64	53	45	56	49	49	33	34
Unaccounted for ...	73	48	126	99	137	248	560	472	804	677
Percentage Vaccinated ...	71	78	75	79	76	68	54	51.3	32.8	36.6

SALE OF FOODS & DRUGS ACTS. — In the following table are set forth the various samples which have been taken during the year, the formal and informal samples being given in separate columns with results.

SAMPLES.	Formal Samples.		Informal Samples.		Total No. of Samples	Total No. Adult-erated
	No. taken	No. adult-erated	No. taken	No. Adult-erated.		
Milk	38	4	4	0	42	4
Butter	8	0	12	1	20	1
Margarine ..	1	0	0	0	1	0
Bread	0	0	6	0	6	0
Tea	0	0	5	0	5	0
Coffee . . .	0	0	11	0	11	0
Chicory .. .	0	0	1	0	1	0
Arrowroot ..	0	0	5	0	5	0
Mustard .. .	1	0	4	1	5	1
Pepper	0	0	7	0	7	0
Lard	2	0	0	0	2	0
TOTALS .. .	50	4	55	2	105	6

It will be observed that 50 samples were taken in accordance with the formal procedure laid down by the Food and Drugs Acts, and that 55 samples were taken informally, 47 of the latter being taken by a woman and four received from householders. It has been recommended that a large number of the samples should be taken informally, and this for two reasons, viz :—that it is more likely that a true sample as

being supplied to the public would be obtained, and that there would be no disturbance to the business of a honest tradesman inasmuch as the publicity of dividing samples (a procedure sometimes misconstrued by ignorant people) is avoided.

A few of the formal samples were also taken in the first instance by a woman, and then divided by the Inspector in accordance with the provisions of the Act.

The particulars of the adulterated samples are set forth below :—

No.	Article.	Adulteration.	Remarks.
433	Butter	90 per cent. Margarine	Informal sample.
459	Milk	2 per cent. added water and 9·6 per cent. deficient in fat	Vendor warned
463	Milk	6·7 per cent. deficient in fat	Vendor warned
464	Milk	10·0 per cent. deficient in fat	Vendor warned
474	Mustard	About 30 per cent. of wheaten flour coloured with Turmeric	Informal sample
498	Milk	1·1 per cent. added water and 46·6 per cent. deficient in fat	Fined £3 and 11s. 6d. costs

With regard to samples No. 459, 463, and 464, where samples of milk were found to be below the standard to a moderate extent, the vendors were warned, the fact that a large proportion of the milks taken at the same time just reached the standard, or, were but slightly over it, being taken into consideration when this course was recommended.

On two occasions informal samples were found to be adulterated, one of butter containing 90 per cent. of margarine and one of mustard containing at least 30 per cent. of wheaten flour coloured with turmeric, but in both these instances when formal samples were taken by the same woman, it was found that fresh stocks had been got in and that the samples were genuine.

No preservatives were found in any of the milk samples during the year. One colouring substance, viz :—turmeric, was found in a sample of mustard as stated above.

Legal proceedings were taken in one case where a milk sample was deficient in fat to the extent of 46·6 per cent. and also showed 1·1 per cent. of extraneous water.

A fine of £3 and 11s. 6d. costs was imposed.

A new Act—Butter and Margarine Act, 1907, which will be of considerable importance in checking the fraudulent sale of butter substitutes, came into force on January 1st, 1908. This Act is to be construed as one with the Sale of Food and Drugs Acts, 1899, and may be cited with the Sale of Food and Drugs Acts, as the Sale of Food and Drugs Acts, 1875 to

1907, and provides amongst other matters, for registration of butter factories, and also any premises on which milk-blended butter is manufactured, or, there is carried on the business of a wholesale dealer in milk-blended butter.

A butter factory must not communicate with, except by a public road, a margarine or milk-blended butter factory, or with the premises of wholesale dealers in these. If any substance intended to be used for the adulteration of butter is found in any butter factory the occupier is guilty of an offence under this Act. The amount of moisture in butter or margarine found in a factory must not exceed 16 per cent. Milk-blended butter shall be dealt with under such name or names as may be approved by the Board of Agriculture and Fisheries, and under the conditions applicable to the sale or description of margarine and with this modification, that in any case where in order to comply with these conditions the article is delivered to the purchaser in a wrapper, there shall in addition to the approved name, be printed on the wrapper in such manner as the Board approve, such description of the article setting out the percentage of moisture or water contained therein as may be approved by the Board. Milk-blended butter must not contain more than 24 per cent. of water.

The Local Government Board may, after such enquiry as they deem necessary, make regulations prohibiting or limiting the use of preservatives in butter, margarine or milk-blended butter. The name “Margarine” is now defined as any article of food whether mixed with butter or not which resembles butter and is not milk-blended butter. Directions are also given in the Act for the marking of wrappers, etc., used in connection with margarine.

“ Butter Factories ” are defined as any premises on which by way of trade butter is blended, re-worked or subjected to any other treatment, but not so as to cease to be butter.

PUBLIC HEALTH (REGULATION AS TO FOOD) ACT, 1907.—Under the provisions of this Act power is given to the Local Government Board to make regulations authorising measures to be taken for the prevention of danger arising to Public Health from the importation, preparation, storage, and distribution of articles of Food and Drink (other than drugs and water) intended for sale for human consumption. All regulations made under this Act shall be laid as soon as may be before Parliament.

MILK SUPPLY.

There are in the Borough 49 cow-keepers who also act as milk sellers, and in addition there are 74 milk sellers who do not keep their own cows. Inspections of cowsheds and milkshops to the number of 458 have been made during the year, and again it may be said that their condition is fairly satisfactory.

TUBERCULOUS MILK.—The number of samples taken for bacteriological examination under this head during the year was 60, of which five were certified by Prof. Delepine of Manchester, “to cause tuberculosis,” which gives a proportion of tuberculous samples of 8·3 per cent. as compared with percentages of 14·8 and 7·9 in the two preceding years.

The five farms indicated were visited by Messrs. Wartnaby & Sadler, Veterinary Surgeons to the Corporation, and a total of 60 cows examined. At one of the farms, no cow suffering from tuberculosis of the udder was found, but a very suspicious animal had been killed for pigs’ food about a week previous to date of visit. At the other farms cows affected with tuberculosis of the udder were found, and were isolated and their milk kept separate, in accordance with the provisions of the Act. As the number of samples taken yearly is necessarily in a town the size of Burton, too few to give a fair working average of the number of samples likely to be

tuberculous, it was decided to make a thorough analysis of the total number of samples taken during the four years the Act has been put into force (1904 to 1907 inclusive). The method of dealing with this matter of tuberculous milk may be explained briefly.

Samples are taken primarily from the milk dealers and forwarded to Professor Delepine, Manchester, for examination. If the report on these is negative no further action is taken, but, if the report be that the sample contains the living infection of tuberculosis, then the farm from which the milk came is visited by the Veterinary Surgeon and all the cows examined, and further samples taken from cows which appear in any way suspicious.

That is to say that the primary samples are made up of mixed milks from the cows in a dairy, but the samples taken from the farms are from individual animals. The number of primary or mixed samples taken in the four years amounted to 231, of which 25 were certified to contain the living infection of tuberculosis. This shows that 10·8 per cent. of the milk consumed in the Borough is tuberculous. Again, of the 231 samples, 104 were from farms situated inside the Borough, and 127 from farms beyond the Borough boundary. Six of the samples from Borough farms were found to be tuberculous, a proportion of 5·7 per cent., while 19 of the samples from outside farms were so certified, a proportion of 14·9 per cent.

It is worthy of notice that in Birmingham it has recently been found that 14 per cent. of the milk from outside the City boundary was found to be capable of producing tuberculosis, while in five samples taken from the mixed dairy milk of Birmingham cow-keepers, tuberculous infection was not found in any.

Again, in Liverpool during the six years 1901 to 1906, 220 samples examined from City cow-sheds showed that 0·91 per cent. were tuberculous, while the percentage of tuberculous samples in 1,992 from country cowsheds was 14·5.

In all three instances therefore, about 14 per cent. of the milk received into these towns from country farms is tuberculous, while a much lower proportion is tuberculous from the town farms. It should be pointed out, however, in fairness to the country farms that, at least so far as Burton is concerned, the country dairies usually contain a much larger number of cows than the Borough dairies, and therefore there is a greater chance that in the dairy herd would be found one animal suffering from tuberculosis of the udder.

This point induces further investigation, and it is found that the 104 Borough samples represented the milk of approximately 893 cows, six samples were tuberculous, or 1 to every 149 cows. The 127 samples from country farms represented the milk of 2,377 cows approximately, 19 samples

were tuberculous, or 1 to every 125 cows. A tuberculous primary sample may be due to one tuberculous cow in a herd, or there might be two or three such cows in a herd, so that the above proportions do not denote the actual proportion of cows suffering from tuberculosis of the udder, but merely show the number of cows represented by each tuberculous primary sample. In fact, on three occasions, two affected cows have been found together at one farm. Again, in some instances the primary sample represented the mixed milk of two farms, and in all these cases a diseased animal was found at one farm, while all the animals at the other farm were healthy. This makes the discovery of the affected animals more difficult, and it also does harm in that the affected milk is spread over a wider area.

The above results show that tuberculous milk is more likely to be obtained from a country farm than from a town farm, notwithstanding the fact that in the country as a rule the cows are living under more natural conditions and are more in the open air. This fact goes to prove that the more frequent inspection and stricter regulations as to housing, air space, and cleanliness in a town does much to reduce tubercular disease amongst the animals, although, part of the difference may be due to the sharper outlook which dairymen in towns keep on their herds and so get rid of doubtful animals more quickly

There is great difficulty in getting the condemned cows disposed of in a satisfactory manner. All that can be done is to see that the cows are isolated from other cows in milk, and that their milk is kept separate and not used for human consumption. The milk of affected cows, by the Dairies, Cowsheds and Milkshops Order, 1899, is made to come under parts (a) and (b) of Section 15 of the Order of 1885, and, therefore,

(a) shall not be mixed with other milk, and

(b) shall not be used for human food.

The only satisfactory method of dealing with these animals is compulsory and immediate slaughter. In one, or two instances, the cows have been slaughtered, and in a good many more they have been sold for slaughter, but in several instances they have been sold at Derby sales and their ultimate destination has not been ascertained.

There is a notification clause in the Manchester milk clauses, and also in those of other large towns, and by application of this, slaughter of the animals is usually attained, but there is no notification clause in the Burton Corporation Act of 1901. There is, however, a limited notification clause in the local Act of 1896, which does not seem to be generally known amongst the dairymen supplying milk to the Borough. I desire, therefore, to draw public attention to the following clause which is in force in the Borough :—

SECTION 25, BURTON-ON-TRENT CORPORATION ACT, 1896.—Every dairyman supplying milk within the Borough from premises whether within or beyond the Borough shall notify to the Corporation, or to the Medical Officer of Health, all cases of infectious disease among persons engaged in, or in connection with his dairy, and *all cases of tuberculosis*, or milk, or parturient fever to his knowledge occurring in his dairy, and any such dairyman who shall commit any breach of this enactment shall be liable to a penalty not exceeding forty shillings.

The unsatisfactory condition of the milk supply of the Borough with reference to tuberculosis as shown above, more especially as regards the milk received from country districts, calls for further powers to be given to local authorities in dealing with this matter. It will be remembered that in 1901, at the International Congress on Tuberculosis, Professor Koch made the sensational statement that bovine and human tubercle bacilli were distinct species and that human beings could not be infected by bacilli of bovine origin. Such a statement coming from an eminent expert like Koch, although never accepted by authorities in this country, threatened to cause a mischievous influence in dealing with the problem of tuberculosis in cattle, hence a Royal Commission on Tuberculosis was formed to investigate the whole subject. The second interim report of this Commission was published during the year, and the substance of this report is to dispose of once for all, the doctrine of Koch as above set forth. The following is an extract from the report :—

“ There can be no doubt that in a certain number of cases the tuberculosis occurring in the human subject, especially in children, is the direct result of the introduction into the human body of the bacillus of bovine tuberculosis, and there also can be no doubt that in the majority at least of these cases the bacillus is introduced through cows' milk. Cows' milk containing bovine tubercle bacilli is clearly a cause of tuberculosis and of fatal tuberculosis in man.....These facts indicate that a very large proportion of tuberculosis contracted by ingestion is due to tubercle bacilli of bovine source. A very considerable amount of disease and loss of life especially amongst the young, must be attributed to the consumption of cows' milk containing tubercle bacilli.”

The above opinion of the Commission, formed after exhaustive experiments extending over five years, undoubtedly show that more stringent measures must be taken in dealing with this subject. There must be compulsory slaughter of the affected animals, and here the question of compensation crops up. I have no objection to compensation so long as this does not encourage traffic by unscrupulous persons in affected animals, or animals likely to be affected. Compensation of say one-half or three-quarters of the market value of the animal as a diseased animal and not as a healthy cow, would be reasonable. In some cases the carcase would be fit for human

food where the disease is localised, and in these cases there is no reason why it should not be used as such. The compensation should be paid by the authority in whose district the farm is situated.

MIDWIVES' ACT.—The number of midwives, who in January, 1907, gave notice of their intention to practice within the area of the Borough was 28, and in April another midwife came into the Borough from an outside district, and notified her intention to practice.

The visits of inspection have been made by the Medical Officer of Health. The registers and bags of appliances are slowly improving, and in the majority of instances may be said to be satisfactory, but in the case of a few of the more illiterate and ignorant of the midwives, there is still room for great improvement.

There was only one case of puerperal fever notified during the year, and this had been attended by an unregistered midwife. The following notifications have been received during the year :—

Medical assistance required	...	12
Still births	... ..	8

The revised Rules of the Central Midwives' Board were sent in May, 1907, to all midwives registered with the local authority

The midwife who was reported in July, 1906, to the Local Supervising Authority for certain offences against the provisions of the Midwives' Act and the Rules of the Central Midwives' Board, and whose case was reported to the Central Midwives' Board, by the Local Authority, was cautioned by the Board in May, 1907.

In December, 1907, another midwife was reported to the Local Supervising Authority for failing to report a still birth, when it was decided to ask the midwife to attend before the Committee to give any explanation, and if a *prima facie* case was made out, to report the case to the Central Midwives' Board. The investigation of this case is not yet complete.

EFFLUVIUM NUISANCES.—Complaints of effluvium nuisances have been very infrequent as compared with the number received in recent years, although a large number of observations have had to be taken on certain works.

The General Forage & Grains Drying Co., latterly carrying on business as the Burton Grains Co., which was the cause of very frequent complaints in 1906, closed their premises in Lichfield Street towards the end of September, 1906, and did not carry on any work there during the year under review.

With reference to the Cattle Food Works of Wardle & Co., Horninglow, it was stated in last year's report that notice had been served on the Company to abate the nuisance from their works in six months. This period expired on 12th January, 1907, and on that date certain alterations for the purpose of abating the nuisance had been commenced but were not completed. The Health Committee then decided to extend the time another three months. Certain works were completed in May whereby the fumes complained of were led into the side flue of the boiler. This was not entirely efficacious in preventing the nuisance, and ultimately, the plan originally suggested by the Borough Surveyor and Medical Officer of Health whereby the fumes are carried under and through the boiler fires was carried out in its entirety, and was completed on July 6th.

Since that date to the end of the year, although numerous observations were taken, no nuisance was recorded

WATER SUPPLY. — The public water supply of the Borough is that of the South Staffordshire Water Works Company, obtained from deep wells and borings at Fradley and Trent Valley, but a large number of houses still depend on private shallow wells for their water supply.

During the year samples of the public supply have been submitted to analysis on 7 occasions, and have always been found to be very free from organic impurity.

In addition, 18 samples from shallow wells in the Borough have been analysed with the result that 10 were condemned as unfit for domestic use, and 8 were passed.

WINSHILL WATER SUPPLY.—The water tower to provide a better supply for Winshill was completed during the year, with the result that the water pressure at all the houses in the higher parts of that district is now satisfactory.

THE HARDNESS OF THE PUBLIC WATER SUPPLY.—On 9th November, 1907, the following resolution was passed by the Council :—

“Resolved that the attention of the Health Committee be called to the increased hardness of the water now supplied to this Borough by the South Staffordshire Water Works Company, that they consider the matter and be authorised to communicate with the Company thereon with the view if they deem expedient of asking the Company to provide some efficient softening process to improve the water supplied to their local consumers.”

Acting on this the Health Committee directed the Borough Surveyor and Medical Officer of Health to prepare a report on the subject.

The matter was still under consideration at the end of the year.

INSANITARY DWELLINGS.—A report was presented to the Health Committee in December, to the effect that the five houses Nos. 5 to 9 Fleet Passage, Green Street, were in such a state as to be unfit for human habitation. It was resolved to serve notice on the owner to put the houses in a proper state of repair in a certain time, failing which a closing order would be applied for.

COMMON LODGING HOUSES.—These number 10, and are registered to accommodate 167 persons.

These houses were limewashed twice during the year, in April and October. Visits of inspection to the number of 483 were made by the Sanitary Inspectors during the year, while in addition the Medical Officer of Health made 7 visits of inspection. No defects or irregularities were found.

INSPECTION OF MEAT.—The number of registered slaughter-houses in the Borough is 44, or 1 less than the previous year. 669 visits of inspection were made, and in 11 instances limewashing was required, and was carried out without undue delay.

Two seizures of bad meat were made during the year.

The first was a case of diseased pork at Winshill, and the other was 4 quarters of diseased meat in the Market Hall.

Legal proceedings were instituted in each case with the result that fines of £3 and £1 14s. 6d. costs in the first case, and of £8 and £1 8s. 0d. costs in the second were inflicted.

In addition, 47 rabbits, the carcasses of three pigs, and two consignments of fish were submitted for inspection and being pronounced unfit for human food, were given up by the owners for destruction.

KNACKER'S YARD.—Premises in Stanton Road were altered in accordance with the requirements of the Medical Officer of Health and Borough Surveyor, and converted into a Knacker's Yard. The alterations were completed in October, when a licence was granted.

Such premises were needed in the Borough for the slaughter of animals for purposes other than human food.

CONVERSION OF PRIVY MIDDENS AND PAN CLOSETS INTO WATER CLOSETS.—The conversion of privy middens and pan closets to the water carriage system is carried out under powers provided by the Burton-upon-Trent Corporation Act, 1901. The Corporation are therein empowered to contribute towards the cost. During the year 168 privy middens and 279 pan closets were converted, and 43 additional closets were provided.

The work was commenced in January, 1902, and so far 646 privies and 1177 pan closets have been converted.

The total sum contributed by the Corporation towards the cost of these alterations amounts to £11,682.

The conversion of the closets to the water carriage system is one of the chief sanitary improvements which could be undertaken, and this work should if possible be accelerated. It is a work which should result in the increased health and well-being of the inhabitants.

FACTORY AND WORKSHOPS' ACT, 1901.—The list of workshops in the Borough will be found detailed in the Sanitary Inspectors' report. The total number is 275 as compared with 279 last year.

The inspection of workshops is chiefly carried out by the Sanitary Inspectors, who made 586 visits to workshops during the year. It was necessary to request the lime-washing of 7 workshops and 10 bakehouses, but as this was immediately carried out, it was not necessary to take any legal proceedings to enforce this or any other provision of the Act.

OUTWORKERS.--The Home work order of 23rd May, 1907, made in pursuance of sections 107, 108, and 110 of the Factory and Workshops' Act, 1901, was received during the

year. By this the Home Work Order of 1905 is revoked, and full lists of the classes of work which apply to outworkers and which relate to employment in unwholesome premises are set forth, as are also lists of the classes of work where home work is prohibited in the presence of infectious disease.

Various additions have been made to the lists in the order of 1907, but only one of those is found in Burton, viz. the making and repairing of sacks. Lists of outworkers have been received at the proper times, viz., before February 1st, and before August 1st. 26 lists were received at both these periods and 20 lists at the latter only, this being mainly due to the inclusion in the new order of the making or repairing of sacks for which 14 lists were received.

Visits to the number of 334 were paid to outworkers premises, but in no case was it found that the work was being done under insanitary conditions.

One case of Scarlet Fever (lace curtains) and one of Erysipelas (sack making) occurred on outworkers premises, and work was prohibited there until the premises were free from infection. As all precautions were immediately taken by the persons concerned, it was not found necessary to take any legal steps.

Six addresses of outworkers were forwarded to other Councils, but none were received from other places.

INSPECTION OF THE DISTRICT.—In the course of a year practically the whole of the district is inspected in a general way, but it is advisable that a more particular inspection of parts of the district should be carried out yearly.

With reference to the 552 houses in the streets given below, this house to house inspection was made during the year when a considerable number of sanitary defects mostly of a minor character, were discovered and remedied. The defects include defective spouting, and drains, defective privies, dirty houses, defective yard paving, accumulations of manure, etc.

The following is a list of the streets, the number of houses inspected, and the number of defects found :—

Name of Street.	No. of houses inspected.	No. of defects found.
Albert Street	33	5
Thornley Street	21	0
Wetmore Road	72	11
Princess Street	44	7
Charles Street	47	3
Thomas Street	27	4
John Street	41	4
Henry Street	29	1
Little Burton East	17	6
Horninglow Road	34	0
Arthur Street	14	3
William Street	12	0
Fleet Street	18	3
Stanley Street	61	8
Pickering Street	36	14
Moor Street	9	2
Trent Cottages	26	6
Waterside	4	0
Waterside Road	5	3
Heath Road	2	3
TOTALS	552	83

METEOROLOGY.—A summary of the observations at the meteorological station at the Borough Hospital for the year appear below:—

Month.	RAINFALL.			No. of Days in which 0·01 or more fell.	TEMPERATURE.						DIRECTION OF WIND.				FOG,
	Total Inches.	Greatest in 24 hours.			Mean	Maximum.		Minimum.		No. of Nights at or below 32 deg.	S.W. Quadrant including W. Days.	S.E. Quadrant including S. Days.	N.E. Quadrant including E. Days.	N.W. Quadrant including N. Days.	
		Depth.	Date			Deg.	Date	Deg.	Date						
January ...	1·10	·38	2	8	37·5	52	12	11	25	15	11	15	2	3	
February ...	1·67	·40	12	12	36·6	58	27	12	3	18	7	9	2	10	
March ..	1·30	·47	19	12	43·2	68	31	23	24	18	10	16	0	5	
April ...	1·54	·25	13&21	19	46·0	69	1	27	18	5	7	8	8	7	
May ...	3·70	·92	13	17	51·1	79	12	31	22	1	5	10	6	10	
June ...	2·98	·52	11	22	55·1	74	9	39	29	0	14	13	0	3	
July ..	3·47	1·36	21	17	57·2	79	18	39	11	0	12	4	14	1	
August ...	3·66	1·19	14	17	58·7	74	3 & 9	38	28	0	21	10	0	0	
September ...	0·83	·28	4	8	56·8	74	12&13	34	24	0	7	5	9	9	
October ...	4·29	1·29	16	21	49·3	66	6	29	8	4	2	20	2	7	
November ...	2·24	·46	24	19	42·8	58	5	23	30	10	4	11	0	12	3
December ...	3·16	·67	12	21	39·6	55	8	24	1	14	7	16	5	2	1
Year—1907. ...	29·94	1·36	July 21	193	47·8	79	May 12 and July 18	11	Jan. 25	85	107	137	48	69	4

TABLE I.

BURTON-UPON-TRENT.**Vital Statistics of Whole District during 1907 and previous Years.**

YEAR.	Population estimated to Middle of each Year.	Births.		Total Deaths registered in the District					Total Deaths in Public Institutions in the District.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	Nett Deaths at all Ages belonging to the District.	
		Number.	Rate.*	Under 1 Year of age		At all Ages.		Number.				Rate.*	
				Number.	Rate per 1,000 Births registered	Number.	Rate.*						
													5	6	7	8
1	2	3	4	5	6	7	8	9	10	11	12	13	
1897.....	48,197	1430	29.7	191	133	758	15.73	105	39	6	725	15.04	
1898.....	48,694	1463	30.0	209	142	765	15.70	111	37	3	731	15.01	
1899.....	49,245	1429	29.0	191	134	815	16.54	130	50	7	772	15.69	
1900.....	49,870	1390	27.8	199	143	971	19.49	163	44	0	927	18.59	
1901.....	50,628	1385	27.3	148	106	742	14.67	119	44	5	703	13.88	
1902.....	50,973	1365	26.7	155	113	705	13.83	129	45	12	672	13.18	
1903.....	51,450	1366	26.5	121	89	653	12.69	128	47	9	615	11.89	
1904.....	51,934	1354	26.0	160	118	815	15.69	166	42	9	782	15.05	
1905.....	52,424	1333	25.4	116	87	641	12.20	139	48	18	611	11.65	
1906.....	52,922	1282	24.2	151	117	702	13.26	132	39	23	686	12.96	
Averages for years 1897-1906	50,633	1379	27.2	164	118	756	14.98	132	43	9	722	14.29	
1907.....	53,000	1302	24.5	123	94	685	13.00	129	48	23	660	12.45	

* Rates in Columns 4, 8, and 13 calculated per 1,000 of estimated population.

Area of District in acres (exclusive of area covered by water) 4,204. Total population at all ages, 50,386. } At census of 1901.

No. of inhabited houses, 10,244. Average number of persons per house, 4.91

I. Institutions within the District receiving sick and infirm persons from outside the District.	II. Institutions outside the District receiving sick and infirm persons from the District.	III. Other Institutions. the Deaths in which have been distributed among the several Localities in the District.
General Infirmary Union Workhouse	Borough Isolation Hospital Burntwood Asylum County Asylum, Cheddleton Starcross Idiot Asylum, Exeter Knowle Idiot Asylum, Birmingham	Queen's Hospital, Birmingham
The Union Workhouse is within the District.		

TABLE II.

BURTON-UPON-TRENT.

Vital Statistics of separate Localities in 1907 and previous years.

Names of Localities.	The whole District.				Shobnall.				Victoria.				Horninglow.				Uxbridge.				Broadway.				Burton.				Winhill & Wetmore.				Stapenhill.				
Year.	Population estimated to middle of each year.	Births Registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births Registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births Registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births Registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births Registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births Registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births Registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births Registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births Registered.	Deaths at all Ages.	Deaths under 1 year.	
1897 ...	48,197	1,430	725	191																																	
1898 ...	48,694	1,463	731	209																																	
1899 ...	49,245	1,429	772	191																																	
1900 ...	49,870	1,390	927	199																																	
1901 ...	50,628	1,385	703	148																																	
1902 ...	50,973	1,365	672	155	7,211	182	64	16	6,171	165	84	24	6,245	198	88	19	7,176	184	121	27	6,801	171	73	15	5,818	151	99	23	6,093	136	64	16	5,458	178	79	15	
1903 ...	51,450	1,366	615	121	7,247	165	79	13	6,346	175	75	17	6,309	210	90	22	7,263	197	94	20	6,821	177	66	14	5,827	133	82	15	6,129	136	55	9	5,508	173	74	11	
1904 ...	51,934	1,354	782	160	7,240	178	146	30	6,475	174	96	20	6,466	185	85	21	7,402	198	110	24	6,805	195	93	16	5,820	119	113	19	6,122	127	72	13	5,604	178	67	17	
1905 ...	52,424	1,333	611	116	7,115	174	81	13	6,977	193	59	10	6,817	179	81	13	7,687	227	84	25	6,593	146	63	10	5,597	118	108	14	5,977	154	57	13	5,661	142	78	18	
1906 ...	52,922	1,282	686	151	7,186	146	95	24	7,077	175	80	17	7,023	192	93	18	7,800	190	94	26	6,606	172	73	11	5,495	110	94	19	6,018	143	75	17	5,717	154	82	19	
Averages of years 1897 to 1906.	50,633	1,379	722	164																																	
1907 ...	53,000	1,302	660	123	7,059	189	92	21	7,060	193	88	21	7,090	165	87	14	7,986	210	95	19	6,573	161	76	10	5,476	99	87	13	6,081	120	55	8	5,675	165	80	17	

Date		Description		Amount		Balance	
Year	Month	Particulars	Debit	Credit	Debit	Credit	
1901	Jan	By Balance		100.00	100.00		
1901	Feb	To Cash	50.00		150.00		
1901	Mar	By Cash		25.00	150.00	25.00	
1901	Apr	To Cash	75.00		225.00		
1901	May	By Cash		100.00	225.00	100.00	
1901	Jun	To Cash	100.00		325.00		
1901	Jul	By Cash		150.00	325.00	150.00	
1901	Aug	To Cash	125.00		450.00		
1901	Sep	By Cash		200.00	450.00	200.00	
1901	Oct	To Cash	150.00		600.00		
1901	Nov	By Cash		250.00	600.00	250.00	
1901	Dec	To Cash	175.00		775.00		
1901	Total		1000.00	1000.00	775.00	775.00	



TABLE III.
County Borough of Burton-upon-Trent.
Cases of Infectious Disease notified during the Year 1907.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.							TOTAL CASES NOTIFIED IN EACH LOCALITY.							NO. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY.							Total cases removed to Hospital		
	At all Ages.	At Ages.—Years.					Shobnall.	Victoria.	Horningslow	Uxbridge.	Broadway.	Burton.	Winshill and Wetmore.	Stapenhill.	Shobnall.	Victoria.	Horningslow	Uxbridge.	Broadway.	Burton.	Winshill and Wetmore.		Stapenhill.	
		Under 1	1 to 5.	5 to 15.	15 to 25.	25 to 65.																		65 and upwards
Small Pox ...							2	3	7	10	12	4	4	1	1	0	0	4	0	1	1	0	0	6
Cholera ...							6	17	7	3	2	4	1	1	0	0	0	0	0	0	0	0	0	
Diphtheria ...							13	25	41	3	5	6	29	19	9	19	38	3	5	6	6	21	16	
Memb. Croup ...	43	0	11	28	3	1	2	3	7	10	12	4	4	1	1	0	4	0	1	1	0	0	0	
Erysipelas ...	41	0	1	4	2	25	6	17	7	3	2	4	1	1	0	0	0	0	0	0	0	0	0	
Scarlet Fever ...	141	0	41	80	11	9	13	25	41	3	5	6	29	19	9	19	38	3	5	6	6	21	16	
Typhus Fever ...																								
Enteric Fever ...	28	0	3	5	10	10	2	2	3	4	14	1	2	0	0	1	2	1	10	0	0	0	0	
Relapsing Fever ...																								
Continued Fever ...																								
Puerperal Fever ...	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
Plague ...																								
Totals ...	254	0	56	117	26	46	23	47	58	20	34	15	36	21	9	20	44	4	16	7	21	16	137	

Borough Isolation Hospital, Outwoods, Burton-on-Trent, is situated just outside the Borough boundary in the Tutbury Rural District, Staffordshire, and is provided by the Corporation of Burton.

TABLE IV.

County Borough of Burton-upon-Trent.

DEATHS REGISTERED FROM ALL CAUSES DURING THE YEAR 1907.

Causes of Death.	Deaths at the subjoined ages of "Residents" whether occurring in or beyond the District							Deaths at all ages of "Residents" belonging to Localities, whether occurring in or beyond the District.								Total Deaths whether of "Residents" or "Non-Residents" in Public Institutions in the District	Deaths of Outsiders
	All Ages	Under 1 year	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards	Shob-nall	Vic-toria	Horn-ing-low	Uxbri-dge	Broad-way	Bur-ton	Win. and Wet.	Stap-enhill		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
Small Pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	35	8	26	1	...	...	...	6	5	5	3	5	4	1	6	...	...
Scarlet Fever	7	...	2	5	...	...	...	1	...	5	...	...	...	...	1	...	...
Whooping Cough	6	3	3	...	...	...	...	1	4	...	1	...	...	...	...	...	...
Diphtheria (including Membranous Croup	5	...	4	1	...	...	...	...	...	2	1	1	1	...	...	...	...
Croup ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever { Typhus ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric	7	...	...	1	2	4	...	1	1	...	1	1	1	2	...	1	...
Other cont. ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Epidemic Influenza	11	...	1	...	...	5	5	...	2	1	2	3	1	...	2	...	...
Cholera ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea	6	5	1	...	...	...	...	...	1	2	1	...	...	...	2	...	...
(See notes at back.)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteritis	4	...	2	...	...	...	2	1	1	1	...	...	1	...	...	...	...
(See notes at back.)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	1	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...
(See notes at back.)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Septic Diseases	1	...	...	1	...	...	...	...	...	...	1	...	...	...	...	1	...
Phthisis, (Pulmonary Tuberculosis)	61	...	1	2	9	45	4	8	8	10	5	9	13	5	3	12	1
Other Tubercular Dis.	22	6	8	3	...	5	...	4	7	...	4	1	...	1	5	3	...
Cancer, Malignant Dis.	40	...	...	...	1	18	21	6	4	8	4	6	2	2	8	5	2
(See notes at back.)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bronchitis	69	15	3	...	...	11	40	8	12	8	17	6	8	6	4	2	...
Pneumonia	52	12	10	2	2	16	10	9	7	4	10	8	7	3	4	5	2
Pleurisy	3	...	...	...	...	2	1	...	...	1	1	...	...	1	...	...	...
Other Diseases of Respiratory Organs ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Alcoholism ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cirrhosis of Liver	17	...	...	...	...	12	5	1	...	1	3	1	6	1	4	1	1
Venereal Diseases ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Marasmus	26	24	2	...	...	...	...	5	3	5	2	1	4	3	3	3	...
Premature Birth	22	22	...	...	...	...	...	2	4	3	3	1	4	1	4	1	...
Diseases and Accidents of Parturition	6	2	...	...	2	2	...	...	3	...	2	...	1	...	...	...	...
Heart diseases... ..	49	...	...	...	...	30	19	6	7	6	5	6	8	7	4	9	3
Accidents	13	1	...	2	...	6	4	2	3	1	1	...	1	4	1	14	8
Suicides	4	...	...	...	...	4	...	...	...	3	...	...	...	...	1	...	...
Hemiplegia & Apoplexy	20	...	...	...	...	6	14	3	1	3	3	1	3	4	2	4	3
Old Age... ..	35	...	...	...	...	1	34	5	...	4	6	6	5	3	6	20	10
Convulsions	7	5	2	...	...	...	...	2	...	...	1	1	...	...	3	...	...
Bright's Disease	9	...	...	...	1	6	2	1	...	4	...	...	1	1	2	3	2
Congenital Defects	4	3	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Not Certified	18	5	1	...	...	7	5	...	1	2	2	5	4	1	3	...	...
All other causes	100	12	3	3	10	44	28	19	13	8	15	13	12	8	12	45	16
All causes	660	123	70	21	27	225	194	92	88	87	95	76	87	55	80	129	48

NOTES TO TABLES IV. AND V.

(a) In Table IV all deaths of "Residents" occurring in public institutions, whether within or without the district, are to be *included* with the other deaths in the columns for the several age groups (columns 2-8). They are also, in columns 9-15, to be *included* among the deaths in their respective "Localities" according to the previous addresses of the deceased as given by the Registrars. Deaths of "Non-residents" occurring in public institutions in the district are in like manner to be *excluded* from columns 2-8 and 9-15 of Table IV.

(b) See notes on Table I as to the meaning of "Residents" and "Non-residents," and as to the "Public Institutions" to be taken into account for the purposes of these Tables. The "Localities" in Table IV should be the same as those in Tables II and III.

(c) All deaths occurring in public institutions situated within the district, whether of "Residents" or of "Non-residents," are, in addition to being dealt with as in note (a), to be entered in the last column of Table IV. The total number in this column should equal the figures for the year in column 9, Table I.

(d) The total deaths in the several "Localities" in columns 9-15 of Table IV should equal those for the year in the same localities in Table II., sub-columns c. The total deaths at all ages in column 2 of Table IV. should equal the gross total of columns 9-15, and the figures for the year in column 12 of Table I.

(e) Under the heading of "Diarrhoea" are to be included deaths registered as due to Epidemic diarrhoea, Epidemic enteritis, Infective enteritis, Zymotic enteritis, Summer diarrhoea, Dysentery and Dysenteric diarrhoea, Choleric diarrhoea, Cholera and Cholera Nostras.

In addition, and as regards deaths of children *under one year of age*, under the heading "Diarrhoea" in column 3 (Table IV.) are to be included all deaths classified as "Diarrhoeal diseases" in Table V.

Under the heading of "Enteritis" in Table IV., are to be included only deaths *over one year of age* registered as due to Enteritis, Muco-enteritis, Gastro-enteritis, Gastric catarrh, Gastritis, and Gastro-intestinal catarrh, unless from information obtained by enquiry from the certifying practitioner or otherwise, the Medical Officer of Health should have reason for including such deaths, under the specific term "Diarrhoea." Deaths from diarrhoea secondary to some other well-defined disease should be included under the latter.

(f) Under the headings of "Cancer" and "Puerperal fever" should be included all registered deaths from causes comprised within these general terms. Thus: Under "Cancer" should be included deaths from Cancer, Carcinoma, Malignant disease, Scirrhous, Epithelioma, Sarcoma, Villous tumour, and Papilloma of bladder, Rodent ulcer. Under "Puerperal Fever" are to be included deaths from Pyæmia, Septicæmia, Sepsæmia, Pelvic peritonitis, Peri- and Endo-Metritis occurring in the Puerperium.

(g) Under "Congenital Defects" in Table V. are to be included deaths from Atelectasis, Icterus neonatorum, Navel hæmorrhage, Malformations and Congenital hydrocephalus.

(h) Under "Tuberculous Meningitis" are to be included deaths from Acute hydrocephalus.

(i) Under "Other Tuberculous Diseases" are to be included deaths from Tuberculosis, Tuberculosis of bones, joints and other organs, Lupus and Scrofula.

(j) All deaths certified by registered Medical Practitioners and all Inquest cases are to be classed as "Certified"; all other deaths are to be regarded as "Uncertified."

TABLE V.

County Borough of Burton-upon-Trent.

INFANTILE MORTALITY DURING THE YEAR 1907.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.		Under 1 week	1-2 weeks	2-3 weeks	3-4 weeks	Total under 1 month	1-2 months.	2-3 months.	3-4 months.	4-5 months.	5-6 months.	6-7 months.	7-8 months.	8-9 months.	9-10 months.	10-11 months.	11-12 months.	Total Deaths under One Year.
All Causes.	Certified	23	6	11	1	41	19	11	3	2	8	6	6	2	6	9	5	118
	Uncertified	2	...	...	1	3	...	1	...	...	...	...	...	1	...	...	...	5
I. Common Infectious Diseases.	Small-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chicken-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Measles ... ..	...	...	...	...	...	...	1	...	...	1	2	...	...	...	3	1	8
	Scarlet Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Diphtheria : Croup ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
II. Diarrhœal Diseases. (See Notes to Table IV.)	Whooping Cough ... ..	...	...	1	...	1	1	...	1	...	...	...	...	...	...	...	...	3
	Diarrhœa, all forms ... ..	...	...	...	...	...	2	...	...	1	1	...	1	...	...	...	...	5
	Enteritis, Muco-enteritis Gastro-enteritis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Gastritis, Gastro- intestinal Catarrh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Premature Birth	17	1	2	...	20	2	...	...	...	...	...	...	...	...	...	...	22
III. Wasting Diseases.	Congenital Defects	1	1	1	...	3	...	...	...	...	...	...	...	...	...	...	...	3
	(See Notes to Table IV.)																	
	Injury at Birth	2	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	2
	Want of Breast-milk Starvation	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Atrophy, Debility, Marasmus	2	2	5	1	10	8	5	...	...	2	1	...	...	...	...	...	26
IV. Tuberculous Diseases	Tuberculous Meningitis... (See Notes to Table IV.)	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
	Tuberculous Peritonitis: Tabes Mesenterica	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	2
	Other Tuberculous Diseases	...	...	...	...	...	...	1	1	...	...	...	...	...	1	...	...	3
	(See Notes to Table IV.)																	
	Erysipelas... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
V. Other Causes	Syphilis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rickets ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Meningitis... .. (Not Tuberculous)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Convulsions ... ..	...	2	...	...	2	1	1	...	...	1	...	...	...	...	...	...	5
	Bronchitis ... ..	...	...	1	...	1	3	1	...	1	2	1	2	...	1	2	2	16
	Laryngitis ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Pneumonia ... ..	...	...	1	...	1	1	1	...	...	1	1	2	1	1	2	1	12
	Suffocation, overlying Other Causes	...	...	...	...	...	1	1	1	...	...	...	...	...	...	...	...	3
		3	...	...	1	4	...	1	...	...	...	1	...	2	2	1	1	12
		25	6	11	2	44	19	12	3	2	8	6	6	3	6	9	5	123

Population, 53,000 (estimated to middle of 1907).

Births in the year, legitimate, 1236 ; illegitimate, 66.

Deaths from all causes at all Ages, 660

Deaths in the year of legitimate infants, 114 ; illegitimate infants, 9.

Annual Report of the Medical Officer of Health for Year 1907,

FOR THE

County Borough of Burton-upon-Trent.

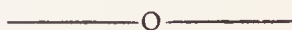
FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES AND HOMEWORK.

1.—INSPECTION. Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.				2.—DEFECTS FOUND.			
PREMISES.	Number of			PARTICULARS.	Number of defects.		
	Inspection,	Written Notices.	Prosecutions.		Found.	Remedied	Referred to H.M. Inspector
WORKSHOPS— Including Workshop Laundries)	586	18	0	Nuisances under the Public Health Acts—Want of cleanliness ...	7	7	0
				Other Nuisances ...	1	1	0
TOTAL ...	586	18	0	Breach of special Sanitary requirements for bakehouses (ss. 97 to 100)	10	10	0
				TOTAL ...	18	18	0

3.—HOME WORK.

NATURE OF WORK.	OUTWORKERS' LISTS, SECTION 107.								Number of Inspections of Outworkers' premises	Outwork in unwholesome premises Sections 108 Instances	Outwork in infected Premises, Sections 109, 110		
	Lists received from Employers.				Numbers of Addresses of Outworkers received from other Councils	Numbers of Addresses of Outworkers forwarded to other Councils	Prosecutions				Instances	Orders made (S. 110)	Prosecutions (Sections 109, 110)
	Twice in the Year.		Once in the Year.				Failing to keep or permit inspection of lists	Failing to send lists					
	Lists	Outworkers	Lists	Outworkers									
Wearing Apparel—													
Making, &c. 	24	73	5	7	0	6	0	0	334	0	0	0	0
Cleaning and Washing ...	0	0	1	36	0	0	0	0	0	0	0	0	0
Lace, lace curtains and nets ...	2	165	0	0	0	0	0	0	0	0	1	0	0
Sacks 	0	0	14	62	0	0	0	0	0	0	1	0	0
TOTAL ...	26	238	20	105	0	6	0	0	334	0	2	0	0

Report of Sanitary Inspector.



HEALTH DEPARTMENT,

TOWN HALL,

BURTON-UPON-TRENT,

January, 1908.

TO THE CHAIRMAN AND MEMBERS OF
THE HEALTH COMMITTEE.

Gentlemen,

I beg to lay before you my Annual Report of the work done in my Department during the past year.

WORKSHOPS.—There are at the present time 275 workshops in the Borough (including those Bakehouses which do not come under the heading of Factories). During the year I had to require the limewashing of 7 Workshops and 10 Bakehouses, and these requirements were at once complied with. 586 visits were made to Workshops during the year, and 334 visits to Outworkers' premises.

List of Trades carried on in Workshops :—

Plumbers 5	Boots 31
Bottlers 3	Smiths 16
Bakehouses 52	Lace 1
Tailors 41	Cabinet and Upholstering 10
Coach Builders ... 2	Saddlers 7
Corset Makers 1	Screen Makers 1
Coopers 4	Rope Makers 1
Cycle Makers 9	Brushes 1
Picture Framers ... 2	Jewellers 4
Tin Workers 4	Joiners 9
Clog Makers 2	Stone Masons 4
Confectioners 4	Wheelwrights 6
Millinery 53	Hosiery 1
Chemical Works ... 1	

FOOD AND DRUGS' ACT.—Under the Food and Drugs' Acts 101 samples have been taken by me during the past year and handed to the Public Analyst, who has from time to time reported the results to you. One prosecution has been taken for adulterated milk—penalty inflicted £3 and 11s. 6d., costs,

There are at the present time :—

	Inspections made.
10 Lodging Houses to accommodate 167 persons ...	483
44 Slaughterhouses	669
55 Bakehouses	362
123 Milksellers, 49 of whom are Cowkeepers ...	458

88 visits have also been made to premises where Ice Cream is made.

During the year 60 samples of milk have been taken from milksellers for bacteriological examination, and 11 from Cows on farms where tuberculosis was found to exist.

UNSOUND FOOD.—Two seizures of bad meat have been made during the year and penalties inflicted of £3 and £1 14s. 6d. costs, and £8 and £1 8s. 0d. costs respectively. I have also had submitted to me 2 consignments of Fish, 47 Rabbits, and the carcasses of 3 Pigs which were found to be unfit for human food and were destroyed.

CATTLE DISEASE.—There has been 11 Cases of suspected Swine Fever reported, 2 of which were confirmed; no other case of Cattle Disease has occurred during the year.

105 Cattle sales were attended for the purpose of granting Licenses for the movement of Swine from the Sale Yards.

Appended hereto is a Summary of Nuisances dealt with during the year.

I am, Gentlemen,

Your obedient Servant,

WM. READING,

Inspector of Nuisances.

SUMMARY OF NUISANCES DEALT WITH DURING THE YEAR.

Foul and defective Ashpits filled up	...	...	...	50
Defective Ashpits repaired	...	...	...	25
Defective Privies repaired	...	...	...	27
Pan Closets converted to Water Closets	...	...		76
Foul and defective Privies converted to Water Closets				92
Additional Water Closets erected	...	...	...	5
Water Closets repaired	...	...	...	6
Yard Drains trapped	...	...	...	18
Drains cleansed from obstruction or repaired	...	...		65
Defective drains reconstructed	...	...	...	47
Spout Drains repaired	...	..	...	52
Accumulations of Manure and offensive matter removed				58

Nuisances from Swine (removed)	5
do, (abated)	17
Houses cleansed	30
Workshops limewashed	7
Bakehouses limewashed	10
Slaughterhouses limewashed	11
Houses repaired	37
Filthy premises cleansed	20
Yards paved or repaired	21
Cases of overcrowding dealt with	8
Water supplied	4
Manure bins provided	3
Miscellaneous Nuisances abated	3
Workshops repaired	1
Urinals repaired	2
Observations taken <i>re</i> Effluvium Nuisances	219
Preliminary Notices issued	425
Statutory Notices issued	19

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1. The first part of the paper is devoted to a general discussion of the problem. It is shown that the problem is of great importance in the theory of the structure of the atom. The second part of the paper is devoted to a detailed analysis of the experimental results. It is shown that the results are in good agreement with the theoretical predictions. The third part of the paper is devoted to a discussion of the results and their implications. It is shown that the results are of great importance in the theory of the structure of the atom.